

sequence listing-biomay.txt
SEQUENCE LISTING

<110> Biomay Produktions- und Handels-Aktiengesellschaft

<120> Allergenic protein from mugwort pollen

<130> Allergenic protein from mugwort pollen

<140>

<141>

<160> 10

<170> PatentIn Ver. 2.1

<210> 1

<211> 396

<212> PRT

<213> Artemisia vulgaris

<400> 1

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1 5 10 15

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20 25 30

Gln Phe Asn Ser Thr Arg Arg Gly Leu His Glu Cys Ala Ala His Asn
35 40 45

Ile Ile Asp Lys Cys Trp Arg Cys Lys Ala Asp Trp Glu Lys Asn Arg
50 55 60

Gln Ala Leu Ala Lys Cys Ala Gln Gly Phe Ala Lys Gly Thr Thr Gly
65 70 75 80

Gly Leu Gly Gly Glu Ile Tyr Val Val Thr Asp Cys Ser Asp Asp Asn
85 90 95

Ala Ala Asn Pro Lys Pro Gly Thr Leu Arg Cys Gly Val Thr Gln Asp
100 105 110

Lys Pro Leu Trp Ile Ile Phe Lys Lys Asp Met Val Ile Lys Leu Lys
115 120 125

His Glu Leu Val Ile Asn Lys Asp Lys Thr Ile Asp Gly Arg Gly Ala
130 135 140

Asn Val Glu Ile Thr Cys Gly Gly Leu Thr Ile His Asn Val Cys Asn
145 150 155 160

Val Ile Ile His Asn Ile His Ile His Asp Ile Lys Val Thr Glu Gly
165 170 175

Gly Ile Ile Lys Ala Thr Asp Ala Lys Pro Gly His Arg His Lys Ser
180 185 190

Asp Gly Asp Gly Ile Cys Val Ala Gly Ser Ser Lys Ile Trp Ile Asp
195 200 205

His Cys Thr Leu Ser His Gly Pro Asp Gly Leu Ile Asp Val Thr Leu
210 215 220

Gly Ser Thr Ala Val Thr Ile Ser Asn Cys Lys Phe Ser His His Gln
225 230 235 240

Lys Ile Leu Leu Leu Gly Ala Asp Asn Ser His Val Asp Asp Lys Lys

sequence listing-biomay.txt

```

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Met His Val Thr Val Ala Phe Asn Arg Phe Ala Glu Ala Cys Asp Gln
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Arg Met Pro Arg Cys Arg Phe Gly Phe Phe Gln Val Val Asn Asn Asp
                275                280                285
Tyr Thr Ser Trp Gly Thr Tyr Ala Ile Gly Gly Ser Ala Asn Pro Thr
                290                295                300
Ile Leu Ser Gln Gly Asn Arg Phe His Ala Pro Asn Asp Pro Met Lys
                305                310                315
Lys Asn Val Leu Val Arg Ala Asp Ala Pro His Thr Glu Ser Met Lys
                320                325                330
Trp Asn Trp Arg Ser Glu Lys Asp Leu Leu Glu Asn Gly Ala Ile Phe
                340                345                350
Val Ala Ser Gly Cys Asp Pro His Leu Thr Pro Glu Gln Lys Ser His
                355                360                365
Leu Ile Pro Ala Glu Pro Gly Ser Ala Val Leu Gln Leu Thr Ser Cys
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Ala Gly Thr Leu Lys Cys Val Pro Gly Lys Pro Cys
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<210> 2
 <211> 1188
 <212> DNA
 <213> Artemisia vulgaris

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<400> 2
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ttacacgaat gtgcagcaca taacataata gacaagtgtt ggaggtgcaa agctgattgg 180
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ggaagaggtg caaatgttga gatcacttgt ggcggtctca ccattcacaa cgtttgcaat 480
gtgatcattc ataacattca catacatgat attaaagtaa ccgaagggtg aattattaag 540
gcaacggacg ctaaaccagg acatagacat aagagcgacg gagatggtat ttgtgttgct 600
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tctgagaaag acttggtaga aaatggagct atattttag catcagggtg cgaccgcgat 1080
ctaaccgagg aacaaaaaag ccatttgatt ccagctgaac caggatcagc agttcttcaa 1140
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```

<210> 3
 <211> 1188
 <212> DNA
 <213> Artemisia vulgaris

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<400> 3
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gctcgggctg acattggtga tgagctcgaa gcggtctcaat ttaattcaac aaggaggggc 120
ttacacgaat gtgcagcaca taacataata gacaagtgtt ggaggtgcaa agctgattgg 180

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sequence listing-biomay.txt

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gaaaaaaacc gacaagcatt agccaaatgc ggcgaagggt ttgcaaaggg aacaactggc 240
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aagccaggga cacttcgttg tgggtgcacc caagataaac ctttgtggat catcttcaag 360
aaagatatgg tcataaaact taaacacgag cttgtgataa acaaagacaa gacaattgat 420
ggaagagggt caaatgttga gatcacttgt ggcgggtctca ccattcacaa cgtttgcaat 480
gtgatcattc ataacattca catacatgat attaaagtaa ccgaagggtg aattattaag 540
gcaacggacg ctaaaccagg gcatagacat aagagcgacg gagatggat ttgtgttgct 600
ggttcttcga agatatggat cgatcattgc acacttagtc atgggtccaga tggccttatt 660
gatgtcacgt tgggtagcac agccgttacc atttccaatt gcaaatttag ccatcaccaa 720
aaaattctat tactcggagc agacaattca catgtagacg ataaaaaaat gcatgtcaca 780
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tctgagaaaag acttgtaga aaatggagct atattttag catcagggtg cgaccgcgat 1080
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<210> 4
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

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<210> 5
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 5
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<210> 6
 <211> 1523
 <212> DNA
 <213> Artemisia vulgaris

```

<400> 6
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ataaagtacc ttcggtactt tgagatagaa agttgtaaaa aaagataatc atacaatata 180
atggaaaaaac attattttgt tatattgttc accgcagcgt ttgttttcgt ggggtgcagct 240
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gaaaaaaacc gacaagcatt agccaaatgc ggcgaagggt ttgcaaaggg aacaactggc 420
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sequence listing-biomay.txt

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cccacttttt	ttttttattg	ttattagcat	tttttatact	tgttaggatt	gtagtggaa	1440
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tcacgttaaa	aaaaaaaaaa	aaa				1523

<210> 7
 <211> 1513
 <212> DNA
 <213> Artemisia vulgaris

<400> 7						
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<210> 8
 <211> 1520
 <212> DNA
 <213> Artemisia vulgaris

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tgtggcgggtc	tcaccattca	caacgtttgc	aatgtgatca	ttcataacat	tcacatacat	720
gatattaaag	taacggaagg	tggaattatt	aaggcaacgg	acgctaaacc	agggcataga	780
cataagagcg	acggagatgg	tatttggtgt	gctggttctt	cgaagatatg	gatcgatcat	840
tgacacttta	gtcatgggtc	agatggcctt	attgatgtca	cgttgggtag	cacagccggt	900
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sequence listing-biomay.txt

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<210> 9
<211> 1535
<212> DNA
<213> *Artemisia vulgaris*

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<210> 10
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Peptide

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<400> 10
Leu Glu Asn Gly Ala Ile Phe Val Ala Ser Gly
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